

MISCELLANEOUS NOTES

1. SOME OBSERVATIONS ON THE BREEDING AND LONGEVITY OF LION-TAILED MACAQUE (*MACACA SILENUS*) IN CAPTIVITY

A pair of adult lion-tailed macaque (*Macaca silenus*) was received from the National Zoological Park, New Delhi in January, 1982 and displayed in one of the monkey islands surrounded by a water moat of 7 metres width at the Nandankanan Biological Park, Orissa. The land area of the circular island with 12 metres diameter and 2.50 metres deep including the 0.60 metre high parapet on the viewer's side. The shelter house in the centre of the island measures 2.70 x 1.50 x 2.10 metres. The island has natural growth of vegetation. The zoo diet of these macaques consists of a variety of fruits, vegetables, greens, bread, milk and cooked rice. They have also free access to insects in the natural vegetation.

During the period from January 1982 to June 1991, the female of this pair and their two female offsprings gave birth to nine young including two still-births. There was always one young born. Births have taken place in January, 4; March, 2; October, 1 and November, 2. The inter-parturition interval recorded four times in one female (Dates of birth: 4-10-1983, 28-3-1985, 21-1-1987, 3-11-1988 and 16-3-1990) varied from 1 year, 4 months and 13 days to 1 year, 9 months and 24 days with a mean of 1 year, 7 months and 11 days. The two zoo-born females gave birth to their first young at the age of 3 years, 9 months and 29 days and 4 years, 3 months and 16 days respectively. The two still-born male young weighed 417-495 gm (mean 456 gm) and measured 39-42 cm (mean 40.50 cm) from tip of the nose to tip of the tail including 12.50-14.00 cm (mean 13.25 cm) long tails.

One adult female living in the park since January 29, 1966 died on June 16, 1984 after remaining for 18 years, 4 months and 18 days in captivity at an estimated age of 20 years.

Usually all primates produce their young singly and in the wild new born young of this species are seen

regularly in September in South India (Prater 1980). There is only one set of twins in 309 births recorded in North American Zoos during 1932-1982 and 305 births for which birth dates are available occur in all the months of the year with minimum of 20 during August to a maximum of 33 in April and December with no evidence of seasonality in reproduction (Lindburg *et al.* 1989). According to Walker *et al.* (1964) all the *Macaca* species usually produce one young but occasionally twins are born. At Delhi Zoological Park 15 births are recorded from March to November with the maximum number of births in April and May (Desai and Malhotra 1976).

The sex ratio at birth was strongly in favour of males (58.5%) which is similar to the present limited findings (Lindburg *et al.* 1989). They further stated that the mean inter-birth interval was 17.3 months for lactating mothers (14.2 months for non-lactating mothers) and the age of sexual maturity for females of this species is given as about 4 years. The birth weight is given as 450 gm (Parker 1990) and 348.8 gm for one specimen (Crandall 1965).

The life span for all species of *Macaca* in general is given as 30 years or more (Walker *et al.* 1964) and for this species as over 20 years (Parker 1990). The maximum longevity recorded for this species is 17 years and 7 months (Jones 1962) and at Rotterdam Zoo one specimen of this species lived for 16 years, 11 months and 16 days (Flower 1931).

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- *Original not consulted.